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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,277	09/07/2004	Wade Chute	30319.472	5276
22828 7590 02/27/2007 EDWARD YOO C/O BENNETT JONES 1000 ATCO CENTRE 10035 - 105 STREET EDMONTON, ALBERTA, AB T5J3T2 CANADA			EXAMINER HUG, ERIC J	
			ART UNIT 1731	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/711,277		CHUTE ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Eric Hug		1731	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 11, 2007 has been entered.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorner (US 1,758,655) in view of Rinman (US 1,879,503). Dorner discloses a method for the production of cellulose fibers and papermaking pulp from nonwood plant species. The method takes into account high levels of silica known to exist in nonwood species (page 1, lines 38-41). The method also recovers non-cellulose materials into commercially usable forms (page 1, lines 81-87). The method includes steps of treating the nonwood material with alkali/caustic in an amount sufficient to react with the silica. The treatment is performed after leaching of sugars, and may be performed in conjunction with beating (pre-pulping) of the material. The resulting liquor contains a high level of dissolved silicates and carbohydrates. See particularly the paragraph on page 2, lines 22-70. After treating with caustic, the treated material is cooked through ordinary digestion process, washed, and bleached. See page 2, lines 72-99. Note that the

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recited nonwood species in Dorner are identically disclosed in the present specification as being examples of nonwood fiber sources which may be used.

In Dorner, the carbohydrates in the liquor are subsequently precipitated out of the liquor by acidification, while leaving the silicates in solution. This differs from the present invention where the silicates are precipitated out of solution. However, the recovery of silicates from a pulping liquor by precipitation for preventing scale formation on subsequent processing equipment is known to one of ordinary skill in the art as disclosed by Rinman. At the time of the invention, it would have been obvious to one skilled in the art to further acidify the liquor obtained by Dorner to precipitate out silicate materials for the same reason. Similarly, to re-use the precipitated silicates and purified liquor would be obvious to one skilled in the art for economic reasons. One of ordinary skill in the art is presumed to know something about the art apart from what the references alone teach, and can be motivated by economics to depart from the prior art's teaching. See, for example, *In re Clinton*, 188 USPQ 365, 367 (CCPA 1976), and *In re Thompson*, 193 USPQ 275, 277 (CCPA 1976). Regarding the claimed ranges of temperature and solids content, Dorner does not disclose these. However, one skilled in the art would recognize optimizing the temperature and solids content depending on the starting material. Note the use of elevated temperature in Dorner.

*Response to Arguments*

Applicant's arguments filed January 11, 2007 have been considered. The declaration by Robert. W. Hurter has also been considered. The rejections set forth previously have been withdrawn. A new grounds of rejection is set forth above.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chou et al (US 4,957,599) disclose delignifying and bleaching nonwoody, lignocellulosic material comprising treating the material in an alkaline solution.

Gortner et al (US 1,757,768) discloses a method of removing lignin and silica from vegetable fibers.

Zhu et al (US 2003/0217823) discloses a process for producing a pulp slurry from high silica content lignocellulosic materials.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Eric Hug